SmartPower 4880
4U rack-mount lithium-ion battery system

SmartPower 4880, a powerful 48V LiFePO4 battery product, has been designed to provide power backup for remote or outside telecom plants like Access Terminals, Base Transceiver Stations, Base Station Controllers. According to customer needs, products can be expanded in parallel to meet the needs of the data center.

Benefits
- Increased energy in given space
- Easy installation and upscaling
- High operational reliability
- Optimized supervision strategy through remote control/diagnostic
- Excellent long life time
- Built-in intelligent BMS to protect the battery pack at any time and prolong its service life

Specifications

<table>
<thead>
<tr>
<th>Nominal Characteristics</th>
<th>SSIFP15S4880A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Voltage</td>
<td>48V</td>
</tr>
<tr>
<td>Typical Capacity</td>
<td>80Ah(25°C )</td>
</tr>
<tr>
<td>Typical Energy</td>
<td>3840 Wh</td>
</tr>
<tr>
<td>Volumetric Energy Density</td>
<td>122.0 Wh/dm³</td>
</tr>
<tr>
<td>Gravimetric Energy Density</td>
<td>93.7 Wh/kg</td>
</tr>
</tbody>
</table>

Dimensions
- Width 442mm
- Height 178mm(4U)
- Depth 400mm

Typical Weight
- 41Kg

Electrical Characteristics
- Voltage Window: 40.5 ~ 54.0V
- Charge Voltage Range: 52.5 ~ 54.0V
- Max. Permanent Discharge Current: 80A
- Max. Permanent Charge Current: 80A
- Faradic Charge Efficiency: 99% (+20°C)
- Energy Charge Efficiency: 94% (+20°C)
- Communication Interface (optional feature): Modbus/SNMP/TACP

Additional Features (optional feature)
- LCD Display

Operation Environment
- Charge Temperature: 0°C to +55°C
- Discharge Temperature: -20°C to +60°C
- Storage Temperature: -20°C to +60°C
- Protection Class: IP20

Standards

a. Product
- IEC 60950
- IEC 62321
- IEC 62133

b. MS certification
- ISO 9001
- ISO 14001
- OHSAS 18001

SSIFP15S4880A
Discharge Data

### Constant Current Discharge Data (25℃)

<table>
<thead>
<tr>
<th>Current/A</th>
<th>0.1C</th>
<th>0.2C</th>
<th>0.3C</th>
<th>0.4C</th>
<th>0.5C</th>
<th>0.6C</th>
<th>0.7C</th>
<th>0.8C</th>
<th>0.9C</th>
<th>1.0C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage/V</td>
<td>45.0</td>
<td>8.333</td>
<td>4.033</td>
<td>2.600</td>
<td>1.908</td>
<td>1.417</td>
<td>1.033</td>
<td>0.233</td>
<td>0.142</td>
<td>0.225</td>
</tr>
<tr>
<td>Time/h</td>
<td>43.5</td>
<td>9.450</td>
<td>4.658</td>
<td>3.083</td>
<td>2.333</td>
<td>1.842</td>
<td>1.542</td>
<td>1.258</td>
<td>0.967</td>
<td>0.883</td>
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<tr>
<td>Voltage/V</td>
<td>42.0</td>
<td>10.137</td>
<td>5.078</td>
<td>3.377</td>
<td>2.605</td>
<td>2.092</td>
<td>1.700</td>
<td>1.492</td>
<td>1.292</td>
<td>1.150</td>
</tr>
<tr>
<td>Time/h</td>
<td>40.5</td>
<td>10.183</td>
<td>5.092</td>
<td>3.400</td>
<td>2.625</td>
<td>2.100</td>
<td>1.717</td>
<td>1.500</td>
<td>1.300</td>
<td>1.175</td>
</tr>
</tbody>
</table>

Performance Curve

Cycle Life vs. Depth of Discharge (DOD)

Calendar Life at Different Temperature

Discharge Curve at Different Temperature

Charge Curve at Different Temperature

Discharge Curve at Different Rate (25℃)

Charge Curve at Different Rate (25℃)